

REMARKS

Reconsideration of the present application in view of the following remarks is requested respectfully.

Claims 1 - 22 are presented. No claims have been amended, added or cancelled.

I. OBJECTIONS TO THE DRAWINGS

Applicants acknowledge the Examiner's comments that the drawings are acceptable for examination purposes (see page 14 of the Office Action).¹ Applicants will file the appropriate petition for acceptance of the color photographs upon indication of allowable subject matter.

II. THE CLAIMS DEFINE PATENTABLE SUBJECT MATTER**A. Summary of The Claimed Invention**

According to one aspect of the invention now claimed, applicants have discovered that articles of manufacture (i.e. candles) can be obtained by the use of compositions containing a unique combination of components in the amounts specified to provide a specific and highly desirable appearance to the article. In particular it has been found (although it is not fully understood) that the certain aspects of the present invention produce unique and highly decorative effects (see, for example, claims 1 – 6). It is important to note, however, that the desired aesthetic effect is not obtained for composition outside the scope of the claims. For example, even for compositions comprising both vegetable-derived

¹ The undersigned notes that the pages after page 12 of the office action were mis-numbered. Reference herein to page numbers refers to the actual page number irrespective of the number appearing at the top of the page.

compound(s) and insect wax, applicants have found that the desirable decorative effects are generally not produced when insect wax is included in the composition in amounts of about greater than 20% by weight. (See page 8, lines 9 – 13 and Figure 6 of the present specification). Further by way of example, applicants have noted that the advantageous aesthetic features of the present invention are generally not achieved with compositions that eliminate the vegetable-based compounds and utilize instead petroleum-derived compounds. (See page 6, lines 3 – 5 of the present specification).

The present application is also directed in certain embodiments to methods of fabricating molded articles in which insect wax is included in the composition to be molded in amounts effective to cause sufficient shrinkage of said molded article and to improve the release properties of said composition from said mold (claims 17 - 22). Important to these claims is that applicants have found that the combination of components specified in the claims, when used to form a candle, undergo no detrimental shrinkage upon solidification. On the other hand, applicants have also found that the compositions which include as little as 1% by weight of insect wax (see claim 18) in accordance with the present methods produces enough shrinkage of the article to enhance release from the mold. Importantly, this desirable result is achieved without changing the overall shape or integrity of the article.

B. The Cited Prior Art Does Not Render the Claimed Invention Unpatentable

In the outstanding office action, the Examiner has rejected the pending claims under 35 U.S.C. § 103 (a) as being unpatentable over a combination of numerous and varied references. However, applicants respectfully submit that no single item cited by the Examiner, nor any proper combination of items cited by the Examiner, discloses or even

remotely suggests the articles of manufacture as presently claimed. More specifically, all of the article of manufacture claims (claims 1-16) require that at least one surface layer of the article is formed from a composition comprising both vegetable derived compounds and insect wax. Not only does the information cited by the Examiner fail to suggest such a combination, but there is nothing in any of the items cited by the Examiner which suggests the surprising and unexpected results which are derived from the use of vegetable derived compounds and insect wax within the parameters specified for these components in the claims. For this basic reason, as well as the additional reasons discussed below, claims 1-16 as presently presented define patentable subject matter and are in condition for allowance. The same is true with respect to the claims directed to methods of fabricating molded articles (claims 17-22). Again, there is nothing in any of the items cited by the Examiner that would even remotely suggest that the combination of vegetable-derived compounds and insect wax, particularly in the specified amounts (see claims 18 – 20) would cause sufficient shrinkage of said molded article to improve the release properties of said composition while at the same time not causing unwanted distortion of the shape of the article. Thus, it is respectfully submitted that the Examiner's contentions of unpatentability are not proper and should be withdrawn.

1. The Primary Reference Cited by The Examiner Does Not Disclose Articles or Methods Containing Insect Wax

The Examiner has relied on a single primary reference, namely, Greives (U.S. Patent 1,805,171), in rejecting the claims for obviousness. It is the Examiner's position that the Grives patent discloses "both a shaped article and (i.e. – an ornamental candle) and method of forming the article which results in, after cooling a molten composition layer (i.e. applied by

dipping a preformed paraffin candle), the composition being made of a blend of wax (e.g. 30-60% of stearic acid and (spermaceri or Japan wax) and/or 1-5% carnauba).” (See Office Action, page 15). The Examiner has acknowledged that Grieves “does not specify the origin of manufacture of the stearic acid component of the candle composition.” *Id.* While the Examiner indicates that Grieves referred to vegetable derived compounds, such as Japan wax and carnauba wax, the Examiner can not and does not assert that there is any reference or disclosure whatsoever of insect wax in the Grieve patent.

Thus, the primary reference cited by the Examiner fails to disclose or even remotely suggest an essential requirement of the pending claims, namely, the presence of a composition comprising both vegetable derived compounds and insect wax. Moreover, applicants respectfully traverse the Examiner’s contentions that the Grieve patent discloses the visual characteristics which are alleged to be “not unlike that disclosed and claimed by applicant.” (See Office Action page 5). More specifically, applicants traverse the Examiner’s conclusion that the “candle composition of Grieves provides a surface layer on a candle article with an appearance is selected from the group consisting of a fingerprint pattern, sunburst pattern, a tortoise pattern and a spider pattern.” (See Office Action, page 16). Applicants respectfully submit that there is no basis in the Grieves patent for drawing this conclusion. It is true that the Grieves patent indicates that candles manufactured in accordance with its teachings may have decorative effects. There is simply no basis, however, for concluding that those decorative effects satisfy the requirements of claims 1 – 6, nor is there any basis for concluding on the basis of Greives that candles having such a specified appearance can be manufactured. Accordingly, applicants respectfully request that the Examiner withdraw his contentions in this regard.

2. The Secondary References Cited by The Examiner Also Fail to Disclose or Suggest Articles or Methods Containing Insect Wax

The Examiner has relied on a total of six (6) secondary patents in an effort to overcome the deficiencies of Grieves. More specifically, the Examiner has attempted to combine the alleged teachings of the secondary patents with Grieves as support for the argument that the subject matter of the pending claims would be obvious to a person skilled in the art. Applicants respectfully traverse the Examiner's positions in this regard. As described in detail below, the secondary patents cited by the Examiner, both singly and in the aggregate, fail to overcome the substantial deficiencies in Grieves with respect to the subject matter of the pending claims.

The Examiner has relied on two patents, namely, U.S. Patents No. 6,284,007 and 6,497,735 to Tao in an effort to overcome the deficiencies of Grieves. As initial matter, applicants do not necessarily concede that either of these patents is in fact prior art to the present claims. More specifically, it is noted that each of these patents was published after the filing date of the present application. Thus, these patents are not prior art under the provisions of 35 USC 102(a) or (b). Furthermore, applicants do not hereby concede the prior art status of these patents under the provisions of 35 USC 102 (e) and specifically reserve the right to swear behind such patents in the event the Examiner's rejections based thereon are maintained.

Even if the Tau patents were considered to be prior art to the presently pending claims, the disclosure contained in these patents is insufficient to overcome the substantial deficiencies in Grieves and render the claimed subject matter obvious. The Tao patents describe a process of making candles from a composition including a vegetable-lipid

component, i.e. a triglyceride (i.e. fatty acid esters of glycerol) or fatty acid/triglyceride mixture (i.e. stearic, palmitic or oleic acid) and petroleum wax. The improvement sought by Tao respects the capability of the candle to burn approximately 80% longer than the paraffin wax based candles. The Tao patents indicate that this capability is due to the different crystallization/solidification behavior of a vegetable based candle, as opposed to a petroleum based one. There is no disclosure or mention anywhere in either of these patents, however, of any composition which includes insect wax. Thus, there is no express information contained in either of these patents from which a person skilled in the art could find a motivation or reason to modify the compositions of Grieve to remove any portion of the vegetable wax described therein and to replace it with insect wax.

Similarly U.S. Patent No. 4,714,496 - Luken et al. fails to describe or even suggest any composition or method which utilizes insect wax. Rather, Luken et al. describes a wax composition comprised of paraffin, a C₁₆ or C₁₈ fatty acid (i.e. palmitic and stearic acid), and a high molecular weight alpha-alkyl-branched carboxylic acid. (Col. 2, lines 9 – 35). In fact, Luken et al. teaches away from certain aspects the present invention by specifically requiring a combination of fatty acids and paraffin material as the source for the candle or as an over dip. (Col. 1, lines 61 – 64). This is contrary not only to the basic requirement in the present claims requiring the presence of insect wax, it is also contrary to those aspects of the present invention which teach that the articles and methods of the present invention can be effective without the use of any paraffin materials. (See the present specification at page 2, lines 5 – 9 and page 6, lines 2 – 5).

Still further, there is no disclosure in the Tao patents, or in the Luken et al patent, which would suggest using the palmitic acid: stearic acid weight ratio specified in certain of the claims (see claim 13). In fact, there is no disclosure in either of these patents of palmitic acid at all, much less in the specified ratio with stearic acid. This same statement is true with respect to many of the other limitations required by the claims, including the insect wax limitation of claims 9, 10, 19 and 20.

A. The Cited References Can Not Be Properly Combined In a Manner That Suggests The Present Invention

The Examiner asserts that the teachings presented in the disclosure of each Grives, French and Lewis when taken together would render the present invention obvious. Applicants respectfully traverse the Examiner's position in this regard. In deciding whether or not an invention is obvious in the light of the prior art, the Federal Circuit has stated that "we look to see whether combined teachings render the claimed matter obvious" In re Wood, 599 F.2d 1032, 1037, 202 U.S.P.Q. (BNA) 171, 174 (C.C.P.A. 1979). Although the prior art references the Examiner discussed do indeed teach various methods of making and decorating candles, they do not disclose compositions or methods of making candles with a unique combination of components in amounts effective to provide a specific and highly desirable appearance, as specified in the claims.

It appears that the Examiner has recognized this failure of the prior art because instead of identifying a relevant disclosure in any of the patents, the Examiner instead asserted, without any reasonable basis in fact, that insect or beeswax is the functional equivalent of

insect or beeswax of vegetable based compositions. There is simply no prior art reference or other authority to support this position.

In fact, the evidence of record is contrary to the Examiner's position. The practical experiments conducted by Applicants, as presented in the present application, prove that insect wax and vegetable-based compounds are not functional equivalents. More specifically, the present examples establish that in the absence of the insect wax, the candle blend of the present invention doesn't present the unique and desirable aspects described in the present invention. (see, for example, Figure 6). This would not be the case, however if vegetable and insect waxes would be "homologues" or the equivalent of the vegetable wax component. If the Examiner's position were correct, there would be no difference in appearance as insect wax is used in the composition. However, the present examples show that as vegetable-based compounds are replaced by insect wax, a dramatic change in aesthetical aspects occurs. If the insect wax and the vegetable-based compounds were homologous or functional equivalents as the Examiner has suggested, then the aesthetical effects would not vary with the percentage of the insect wax present in the composition. (See Figures 1 to 6).

In addition, Applicants note that there is no suggestion in the prior art that would provide the motivation necessary to combine the disclosures of the Grives, French or Lewis to achieve the unique and desirable aesthetic effects of the present invention. Applicants note that the Examiner relies upon the assertion that in the view of "the prior art as a whole" Grives' and Lewis's use of stearic acid and the naphthalene used by French, would have taught the person having ordinary skill in the art to use homologues of the crystallizable

material portion of decorative candle blends. However, the assertion that vegetable waxes and insect waxes are “homologues” is simply without support.

B) Priest and Jensen Are From A Non-analogous Art And Therefore Cannot Be Combined With Grieve In The Manner Suggested

As stated by the Federal Circuit in In re Oetiker, 977 F2d. 1443, 1449, 24 U.S.P.Q/ 2d (BNA) 1443, 1447 (Fed. Cir 1992), “The combination of elements from non-analogous sources, in a manner that reconstructs applicant’s invention only with the benefit of hindsight, is insufficient to present a prima facie case of obviousness. There must be some reason suggestion, or motivation found in the prior art whereby a person of ordinary skill in the field of invention would make the combination.” Id. at 1443. It is therefore unclear why it “ would have been obvious to a person having ordinary skill in the art that insect or beeswax are the structural and functional equivalents for the carnauba wax of Grives” in the light of the teachings of Priest and Jensen, as suggested by the Examiner.

U.S. Patent No. 3,355,295 to Priest relates to a method of providing vesicular photographic elements incorporating a wax nucleating agent, which can be “any wax” but is “preferably” a hydrogenated oil wax, carnauba wax, hydrogenated castor oil wax, or another “suitable” wax such as beeswax, Chinese wax, insect wax, paraffin wax, etc. Further, U.S. Patent No.3,265, 629 to Jensen teaches a method of obtaining coatings for various uses such as for coating of medicaments, said coatings containing waxes, fatty acids, fatty acids esters, fatty alcohols and sterols., where the wax can be a paraffin wax; a petroleum wax, or a vegetable wax such as carnauba wax, japan wax, bayberry wax, flax wax, an animal wax such as spermaceti wax or an insect wax such as beeswax or shellac wax. These patents are not in the candle art and applicants respectfully submit that the Examiner’s combination of

these patents with any of the Grives, French or Tao patents is improper. Neither reference contains the slightest suggestion to use what it discloses in combination in connection with the candle art. Wax compositions for nucleating agents (Priest) and for coating of medicaments (Jensen) are simply not in the same field of endeavor as the candle making art of Grives, French, Tao or Luken. As such, neither Jensen nor Priest can teach that carnauba wax is "the structural and functional equivalent material" to the beeswax or insect wax in the candle making art.

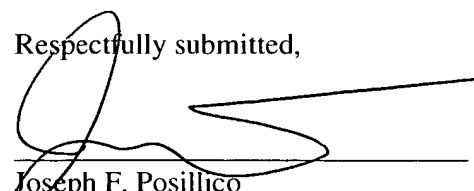
And even if these two patents are combined as suggested by the Examiner in view of Grives, a person skilled in the art would still have no reasonable expectation of achieving the unexpected and desirable aesthetic and mold release properties described in the claims as now presented.

III. CONCLUSION

In view of the above remarks, applicants request submit that the present application is in condition for allowance and an early notice of allowance is earnestly solicited.

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Respectfully submitted,



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